

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A semiconductor device comprising:
stacked semiconductor elements each having at least one thin film transistor;
a resin film formed between the stacked semiconductor elements;
a light emitting element electrically connected to one of the stacked semiconductor elements, and

a light receiving element electrically connected to another one of the stacked semiconductor elements,

wherein a signal is transmitted and received between the stacked semiconductor elements by using the light emitting element and the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

2. (Currently Amended) A semiconductor device comprising:
stacked semiconductor elements each having at least one thin film transistor;
a resin film formed between the stacked semiconductor elements;
a metal oxide partially formed between the stacked semiconductor elements; and
a light emitting element electrically connected to one of the stacked semiconductor elements, and

a light receiving element electrically connected to another one of the stacked semiconductor elements,

wherein a signal is transmitted and received between the stacked semiconductor elements by using the light emitting element and the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

3. (Currently Amended) A semiconductor device comprising:
stacked semiconductor elements each having at least one thin film transistor;
a resin film formed between the stacked semiconductor elements;
a light emitting element electrically connected to one of the stacked semiconductor elements; and

a light receiving element electrically connected to another one of the stacked semiconductor elements,

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

4. (Currently Amended) A semiconductor device comprising:
stacked semiconductor elements each having at least one thin film transistor;
a resin film formed between the stacked semiconductor elements;

a metal oxide partially formed between the stacked semiconductor elements;
a light emitting element electrically connected to one of the stacked semiconductor elements; and
a light receiving element electrically connected to another one of the stacked semiconductor elements,
wherein a first electric signal is converted to an optical signal in the light emitting element,
wherein the optical signal is converted to a second electric signal in the light receiving element,
wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and
wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

5. (Currently Amended) A semiconductor device comprising:
semiconductor elements each having at least one thin film transistor stacked by transferring a semiconductor element formed over a different substrate;
a resin film formed between the stacked semiconductor elements;
a light emitting element electrically connected to one of the stacked semiconductor elements; and
a light receiving element electrically connected to another one of the stacked semiconductor elements,
wherein a first electric signal is converted to an optical signal in the light emitting element,
wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

6. (Currently Amended) A semiconductor device comprising:
semiconductor elements each having at least one thin film transistor stacked by transferring a semiconductor element formed over a different substrate;
a resin film formed between the stacked semiconductor elements;
a metal oxide partially formed between the stacked semiconductor elements;
a light emitting element electrically connected to one of the stacked semiconductor elements; and

a light receiving element electrically connected to another one of the stacked semiconductor elements,

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

7. (Currently Amended) A semiconductor device formed by detaching a plurality of semiconductor elements each formed over a plurality of substrates and by stacking

the detached plurality of semiconductor elements over an element substrate, comprising:

a resin film formed between the plurality of stacked semiconductor elements;

a light emitting element electrically connected to one of the plurality of semiconductor elements; and

a light receiving element electrically connected to another one of the plurality of semiconductor elements,

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein each of the semiconductor elements has at least one thin film transistor,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

8. (Currently Amended) A semiconductor device formed by detaching a plurality of semiconductor elements each formed over a plurality of substrates and by stacking the detached plurality of semiconductor elements over an element substrate, comprising:

a resin film formed between the plurality of stacked semiconductor elements;

a metal oxide partially formed between the plurality of stacked semiconductor elements;

a light emitting element electrically connected to one of the plurality of semiconductor elements; and

a light receiving element electrically connected to another one of the plurality of semiconductor elements,

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein each of the semiconductor elements has at least one thin film transistor,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

9. (Currently Amended) A semiconductor device comprising:

a plurality of stacked thin film integrated circuits each having at least one thin film transistor attached to each other with a resin;

a light emitting element electrically connected to one of the stacked thin film integrated circuits; and

a light receiving element electrically connected to another one of the stacked thin film integrated circuits,

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

10. (Currently Amended) A semiconductor device comprising:

a plurality of stacked thin film integrated circuits each having at least one thin film transistor attached to each other with a resin;

a metal oxide partially formed on either surface of each of the stacked thin film integrated circuits;

a light emitting element electrically connected to one of the stacked thin film integrated circuits; and

a light receiving element electrically connected to another one of the stacked thin film integrated circuits,

wherein a first electric signal is converted to an optical signal in the light emitting element,

wherein the optical signal is converted to a second electric signal in the light receiving element,

wherein the light emitting element comprises a first electrode, a second electrode, and an electro-luminescent layer formed between the first electrode and the second electrode, and

wherein the first electrode, the electro-luminescent layer, and the second electrode are overlapped each other.

11. (Original) A mobile phone having the semiconductor device according to any one of claims 1 to 10.

12. (Original) An electronic book having the semiconductor device according to any one of claims 1 to 10.

13. (Original) A personal computer having the semiconductor device according to any one of claims 1 to 10.

14. (Previously Presented) An electronic card having the semiconductor device according to any one of claims 1 to 10.

15. (Previously Presented) A watch card having the semiconductor device according to any one of claims 1 to 10.

16. (Previously Presented) A semiconductor device according to any one of claims 1 and 2, wherein the signal from the thin film transistor is inputted to the light emitting element.

17. (Previously Presented) A semiconductor device according to any one of claims 1 and 2, wherein the signal from the light receiving element is inputted to the thin film transistor.

18. (Previously Presented) A semiconductor device according to any one of claims 3 to 10, wherein the first electric signal from the thin film transistor is inputted to the light emitting element.

19. (Previously Presented) A semiconductor device according to any one of claims 3 to 10, wherein the second electric signal from the light receiving element is inputted to the thin film transistor.

20. (Previously Presented) A semiconductor device according to any one of claims 1 to 10, wherein the light emitting element is an organic light emitting device.

21. (Currently Amended) A semiconductor device according to any one of claims 1 to 10, wherein the ~~light-emitting element comprises a first electrode, a second electrode, and an~~ electro-luminescent layer has a laminated structure between the first electrode and the second electrode.

22. (New) A semiconductor device according to any one of claims 1 to 10, wherein the one of the stacked semiconductor elements has a first crystallized semiconductor layer, and wherein the another one of the stacked semiconductor elements has a second crystallized semiconductor layer.